 **Indian School Al Wadi Al Kabir**

**Unit Test – 1**

**COMPUTER SCIENCE (Code: 083)**

**SET I**

CLASS : XII Max. Marks:30

Date: 25/05/2025 Time: 1 hour

**General Instructions:**

1. This question paper contains four sections, Section A to D.
2. All questions are compulsory.
3. Section A has 10 questions carrying 01 mark each.
4. Section B has 03 Very Short Answer type questions carrying 02 marks each.
5. Section C has 02 Short Answer type questions carrying 03 marks each.
6. Section D has 02 questions carrying 04 marks each.
7. All programming questions are to be answered using Python Language only.

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|  | **SECTION –A** |  |
| **Q. No.** | **Question** | **Marks** |
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| 1. | State whether the following statement is True or False:  An exception may be raised even if the program is syntactically correct.  Ans:True | 1 |
| 2. | Given the following dictionary  Month={1:"January",2:"February",3:"March"}  Which statement will return "February"?   1. Month.pop() 2. Month.pop(2) 3. Month.pop(1) 4. Month.pop("February")   Ans: B | 1 |
| 3. | Consider the given expression:  2<4 or 16>13 and not 19==19 or 17>4  Which of the following will be the correct output if the given expression is evaluated?     1. True 2. False 3. NONE 4. NULL   Ans: A | 1 |
| 4. | Which of the following statement(s) would give an error after executing the following code?  CL="Class 12" #Statement1  print(CL\*2) #Statement2  CL+="Computer" #Statement3  CL.append("Science ") #Statement4  print(CL) #Statement5   1. Statement2 2. Statement3 3. Statement4 4. Statement 3 and 4   Ans: C | 1 |
| 5. | What will the following expression be evaluated to in Python?  print (16 // (4 + 2) \* 5 + 2\*\*3 \*\*2)  Ans: 522 | 1 |
| 6. | Which of the following statement is false?   1. Try block tests the excepted error to occur 2. Except block handles the run time error 3. Multiple except blocks cannot be associated to one try block 4. Finally block always gets executed either exception is generated or not   Ans : C | 1 |
| 7. | The ‘r+’ mode will:   1. Enable both reading and writing. 2. Raise an error if the file doesn’t exist. 3. Over write the already existing file. 4. Both (A) & (B)   Ans:D | 1 |
| 8. | Which output is not expected from the following program:  import random  x=3  N=random.randint(1,x)  for i in range(N):  print (i,”#”,i+1)   1. 0#1 B. 0#1 C. 0#1 D. 0#1   1#2 2#3 1#2 1#2  2#3 2#4 3#4 2#4  Ans: B/C/D | 1 |
| 9. | Which of the following command can be used to read “n” number of characters from a file using the file object <file>?   1. file.read() 2. m = file.read(n) 3. file.readline(n) 4. file.readlines()   Ans: B | 1 |
| 10. | **Assertion:** The function header ‘def read (a=2, b=5, c):’ is not correct.  **Reason:** Non-default arguments can’t follow default arguments.  Please choose the correct choice out of the four options given below:   1. Both A and R are true and R is the correct explanation for A 2. Both A and R are true and R is not the correct explanation for A 3. A is True but R is False 4. A is false but R is True   Ans : A | 1 |
|  | **SECTION – B** |  |
| 11. | Predict the output of the following code:  T = (9,18,27,36,45,54)  T1 = tuple()  for i in T:  if i%6==0:  T1=T1+(i,)  print(T1)  Ans : (18, 36, 54) | 2 |
| 12. | Write the output of the Python code given below:  g=0  def fun1(x,y):  global g  g=x+y  return g  def fun2(m,n):  global g  g=m-n  return g  k=fun1(2,3)  fun2(k,7)  print(g)  Ans: -2 | 2 |
| 13. | Write the Python statement for each of the following tasks using BUILT-IN functions/methods only:   1. To insert an element 100 at the Second position, in the list L1. 2. To check whether all the characters in the string S1 are digits or not.   L1.insert(1, 100)  S1.isdigit() | 2 |
|  | **SECTION C** |  |
| 14. | Write a user defined function in Python named showGrades(S) which takes the dictionary S as an argument. The dictionary, S contains Name:[Eng,Math,Science] as key:value pairs. The function displays the corresponding grade obtained by the students according to the following grading rules :    For example : Consider the following dictionary. S={"AMIT":[92,86,64],"NAGMA":[65,42,43],"DAVID":[92,90,88]}  The output should be : AMIT– B NAGMA– C DAVID– A  def showGrades(S):  for K, V in S. items():  if sum(V)/3>=90:  Grade="A"  elif sum(V)/3>=60:  Grade="B"  else:  Grade="C"  print(K,"–",Grade)  S={"AMIT":[92,86,64],"NAGMA":[65,42,43],"DAVID":[92,90,88]}  showGrades(S) | 3 |
| 15. | 1. Predict the output of the following code   def execute(x,y=200):  temp=x+y  print (temp,x,y,sep=’#’)  a,b=50,20  execute(b)  execute(b,a)  220#20#200  70#20#50   1. Write a program to read the file letter.txt and display those words which has less than or equal to four characters.   F=open("story.txt",'r')  s=F.read()  L=s.split()  for word in L:  if len(word)<=4:  print(word)  F.close() | 3 |
|  | **SECTION D** |  |
| 16. | 1. Differentiate between seek() and tell() in files.   The tell() function returns the current position of the file pointer in the file.  The seek() function changes the position of file pointer by placing the file pointer at the specified position in the open file.   1. A binary file, EMP.DAT has the following structure:   [Emp\_Id, Name, Salary]  where Emp\_Id : Employee id  Name: Employee Name  Salary: Employee Salary  Write a user defined function, disp\_Detail(), that would read the contents of the file EMP.DAT and update the salary to 30000 for those employees whose salary is less than 25000.  import pickle  def disp\_Detail():  employee=[]  found=False  f=open(r"C:\Users\Teacher\Desktop\emp1.dat","rb+")  try:  while True:  rpos=f.tell()  employee=pickle.load(f)  if employee[2]<25000:  employee[2]=30000  f.seek(rpos)  pickle.dump(employee,f)  found=True  except EOFError:  f.close()  disp\_Detail() | 1+3=4 |
| 17. | 1. What is the difference between text files and binary files?   Text files store data as a sequence of characters, often using ASCII or Unicode encodings, while binary files store data as raw bytes, which can be interpreted in various ways depending on the file format. Text files contain human-readable characters, while binary files contain a sequence of bytes not meant for human readability.   1. Write a function in python to count the number of lines in a text file ‘Country.txt’ which are starting with an alphabet ‘W’ or ‘H’.   For example, If the file contents are as follows:  Whose woods these are I think I know.  His house is in the village though;  He will not see me stopping here  To watch his woods fill up with snow.  The output of the function should be:  W or w : 1  H or h : 2  def countlines():  w\_count = 0  h\_count = 0  f=open(r"C:\Users\Teacher\Desktop\country.txt")  line = f.readlines()  while line:  if line[0] == 'w':  w\_count += 1  elif line[0] == 'h':  h\_count += 1  line = f.readline()  print("lines starting with 'W' or 'w':",w\_count)  print("lines starting with 'H' or 'h':",h\_count)  countlines() | 1+3=4 |

***All the Best***